

REMARKS

Claims 26-43 are pending in the subject application. Applicant has amended claim 26 and added new claim 43. Applicant respectfully submits that the amendment to claim 26 more clearly defines Applicant's invention and distinguishes it over the prior art of record. No new matter has been added to the application by virtue of the present amendment.

Claim Rejections – 35 U.S.C. 102 (b)

The Examiner has rejected claims 26, 28, 35, 37-39 and 41-42 under 35 U.S.C. 102(b) as being anticipated by Beasom (U.S. Patent No. 5,841,169).

Applicant has amended claim 26 to more clearly distinguish Applicant's claimed invention over Beasom. For example, referring to paragraph [0035] (see FIG. 1) of the application, an original substrate 10 not doped with anode and cathode regions is provided and then doped regions 12, 14 and 20 are formed on the original substrate 10 without removing any portion of the original substrate 10 and without replacing any portion of the original substrate 10. Thus, an original substrate not doped with anode and cathode regions is provided, the doped regions 12, 14 and 20 are formed on the original substrate 10 and no part of the original substrate is removed and no part of the original substrate is replaced with another substrate material which is then used to form a "modified" substrate.

Beasom does not anticipate or suggest Applicant's claim 26, as amended, and claims dependent thereupon. Referring to column 4, lines 14-53 and FIG. 2 of Beasom, Beasom teaches a method of providing an original single crystal substrate and etching the original single crystal substrate to remove entire portions of the original substrate to form trenches with a tapered shape outside of single crystal substrate regions where devices are to be formed. Oxide layers 209, 211, 219 are then formed on sidewalls (and bottom) of the trenches. The trenches are then filled with polysilicon to form a "new" substrate surrounding the single crystal device regions (i.e. 202, 212). Doped regions (i.e. 202-207, 212-217) are then formed in the single crystal device regions which are surrounded by the polysilicon substrate. Thus, Beasom removes entire portions of the original single crystal substrate surrounding single crystal substrate regions 210, 220 and

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replaces the removed original single crystal substrate portions with another substrate material (e.g. polysilicon) prior to forming doped regions 202-207, 212-217. Beasom explicitly states that the polysilicon "... will ultimately serve as the integrated circuit substrate" (column 4, lines 36-37). Beasom is silent on providing an original substrate not doped with anode and cathode regions and then forming doped regions on the original substrate without removing any portion of the original substrate and without replacing any portion of the original substrate with another substrate material. The method of Beasom adds process complexity and cost due to the additional removal and substitution steps to form the polysilicon substrate 201.

Therefore, Applicant believes the rejections to the claims under 35 U.S.C. 102(b) have been overcome.

Claim Rejections – 35 U.S.C. 103 (a)

The Examiner has rejected claims 29 and 31-33 under 35 U.S.C. 103(a) as being unpatentable over Beasom (U.S. Patent No. 5,841,169); claims 27 and 30 under 35 U.S.C. 103(a) as being unpatentable over Beasom in view of Mack et al. (U.S. Patent No. 4,736,271); and claims 34, 36 and 40 under 35 U.S.C. 103(a) as being unpatentable over Beasom in view of Robinson et al. (U.S. Patent No. 5,268,316).

As discussed above, Applicant respectfully submits that Beasom, individually or in combination with Mack et al. or Robinson et al., does not teach or suggest Applicant's claim 26, as amended, or claims dependent thereupon.

Therefore, Applicant believes the rejections to the claims under 35 U.S.C. 103(a) have been overcome.

CONCLUSION

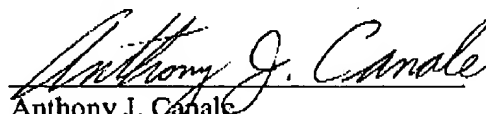
In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicant respectfully requests that the outstanding rejections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. Applicants request a one month extension of time by virtue of the present response. Please charge Applicants' deposit account, 09-0456, a fee of \$120 for a one month extension of time which is due by virtue of this response, and for any additional fee that the PTO determines is due.

Respectfully Submitted,

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